Far-UVC project ideas

Intermediate · A few weeks · Free · Project idea

Online version: https://ai-safety-sandbox.vercel.app/projects/far-uvc-ideas/

Summary

Help far-UVC get from promising to deployed: installation tools, simulations, public-trust research and supply-chain analysis.

Why it matters

If far-UVC works at scale, it could make indoor spaces much safer during a pandemic. Practical barriers, not just science, are holding it back.

What you will have at the end

A tool, simulation, survey or analysis.

Ideas to choose from

- Tools that make real-world installation easier
- Room measurement and optimal lamp placement (compare phone LiDAR apps)
- Simulations of far-UVC in ventilation chambers to replicate papers
- Would people trust far-UVC? A public-perception study
- Supply-chain analysis for far-UVC
- A smartphone app to monitor intensity in real time
- Automated UVC scheduling systems
- How UVC degrades common surface materials

How to start (tick each box as you go)

- [ ] **1. Read the list of ideas above and pick the one you would most enjoy.**
- [ ] **2. Check the source to see whether someone has already done it.**
- [ ] **3. Scope it down to something you can finish in your available time.**
- [ ] **4. Do a quick first version and show it to someone.**
- [ ] **5. Write up what you made and share it with the source authors.**

Key terms

Far-UVC
A band of ultraviolet light (around 200–235 nm) studied as a way to kill airborne germs in occupied rooms.

Source and links

Hatta & Bazarragchaa — A hundred project ideas in biosecurity (2025)
https://casualphysicsenjoyer.com/Essays+in+progress/Biosecurity/A+hundred+project+ideas+in+Biosecurity

Blueprint Biosecurity
https://blueprintbiosecurity.org/

When you have finished

Write a few paragraphs on what you did, what you found and what you would try next, and share it with a friend, your society or online.

Courses, mentors, small grants and communities:
https://ai-safety-sandbox.vercel.app/next-steps/

Questions? Ask in AI Safety Cardiff University (AISCU): https://aiscu.org/

Notes